09/325,189

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Dec 17	The CA Lexicon available in the CAPLUS and CA files
NEWS 3	Feb 06	Engineering Information Encompass files have new names
NEWS 4	Feb 16	TOXLINE no longer being updated
NEWS 5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS 6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS 7	May 07	DGENE Reload
NEWS 8	Jun 20	Published patent applications (A1) are now in USPATFULL
NEWS 9	JUL 13	New SDI alert frequency now available in Derwent's DWPI and DPCI
NEWS 10	Aug 23	In-process records and more frequent updates now in MEDLINE
NEWS 11	Aug 23	PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
NEWS 12	Aug 23	Adis Newsletters (ADISNEWS) now available on STN
NEWS 13	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS 14	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS 15	Oct 09	Number of Derwent World Patents Index updates increased
NEWS 16	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS 17	Oct 22	Over 1 million reactions added to CASREACT
NEWS 18	Oct 22	DGENE GETSIM has been improved
NEWS 19	Oct 29	AAASD no longer available
NEWS 20	Nov 19	New Search Capabilities USPATFULL and USPAT2
NEWS 21	Nov 19	TOXCENTER(SM) - new toxicology file now available on STN

NEWS EXPRESS	August 15 CURRENT WINDOWS VERSION IS V6.0c, CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'MEDLINE' ENTERED AT 11:49:10 ON 24 NOV 2001

=> s fluorescence correlation spectroscop? (10a)(nucleic acid amplif? or PCR) (10a)
quantif?
L1            1 FLUORESCENCE CORRELATION SPECTROSCOP? (10A)(NUCLEIC ACID AMPLIF?
                OR PCR) (10A) QUANTIF?

=> d l1 bib ab

L1   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2001 ACS
AN   1997:470302  CAPLUS
DN   127:76986
TI   Process for determination of nucleic acid molecules at low concentrations
     by amplification using labeled primers
IN   Eigen, Manfred; Walter, Nils; Schwille, Petra; Oehlenschlager, Frank
PA   Evotec Biosystems Gmbh, Germany; Eigen, Manfred; Walter, Nils; Schwille,
     Petra; Oehlenschlager, Frank
SO   PCT Int. Appl., 41 pp.
     CODEN: PIXXD2
DT   Patent
LA   German
FAN.CNT 2
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 9721832         A1   19970619       WO 1996-EP5472   19961206
         W:  JP, US
         RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     DE 19545965        A1   19970612       DE 1995-19545965 19951208
     DE 19634226        A1   19980226       DE 1996-19634226 19960824
PRAI DE 1995-19545965        19951208
     DE 1996-19634226        19960824
AB   A method for detn. of a low concn. of nucleic acid mols. in samples to be
     examd., by amplification reactions using a combination of unmarked primers
     as amplification primers and detectable, in particular labeled primers, as
     detection primers and in particular using polymerases and/or ligases.  The
     detectable primers are incorporated into the amplification products.  The
     drop in the concn. of the free labeled primers, or the rise in the concn.
     of amplification products is measured and is used to det. the no. of mols.
     of target sequence in the original sample.  Incorporation of fluorescent
     group-labeled primers can be quantified by fluorescence correlation
     spectrometry.  The method is insensitive to non-specific amplification.


=> d l1 kwic

L1   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2001 ACS
ST   nucleic acid detection amplification labeled primer; fluorescence
     correlation spectroscopy PCR DNA
     quantification
```

```
=> s l1 and (nucleotides(10a)label?)
L2            0 L1 AND (NUCLEOTIDES(10A) LABEL?)

=> s l1 and nucleotide#
L3            0 L1 AND NUCLEOTIDE#

=> s (nucleotide#(10a)label##)(10a)(substrate#(10a)label##)
L4          118 (NUCLEOTIDE#(10A) LABEL##)(10A)(SUBSTRATE#(10A) LABEL##)

=> s l4 and fluorescence correlation spectroscop?
L5            0 L4 AND FLUORESCENCE CORRELATION SPECTROSCOP?

=>  s (nucleotide#(10a)label##) or (substrate#(10a)label##)
L6        16834 (NUCLEOTIDE#(10A) LABEL##) OR (SUBSTRATE#(10A) LABEL##)

=> s l6 and fluorescen? correlation spectroscop?
L7            17 L6 AND FLUORESCEN? CORRELATION SPECTROSCOP?

=> s l7 and ((nucleic acid amplif?) or PCR))
UNMATCHED RIGHT PARENTHESIS 'PCR))'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s l7 and ((nucleic acid amplif?) or PCR)
L8            4 L7 AND ((NUCLEIC ACID AMPLIF?) OR PCR)

=> d l8 bib ab kwic

L8   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2001 ACS
AN   2001:731083  CAPLUS
DN   135:269641
TI   Single nucleotide polymorphism detection via
     fluorescence correlation spectroscopy analysis
     of labeled probe hybridization
IN   Hori, Kunio; Karaki, Sachiko; Kanou, Tokio; Takamiya, Yuji
PA   Olympus Optical Co., Ltd., Japan
SO   PCT Int. Appl., 63 pp.
     CODEN: PIXXD2
DT   Patent
LA   Japanese
FAN.CNT 3
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 2001073120      A1   20011004       WO 2001-JP2495   20010327
         W:  US
         RW: DE, FR, GB
     JP 2001269198      A2   20011002       JP 2000-87500    20000327
     JP 2001269199      A2   20011002       JP 2000-87501    20000327
     JP 2001272404      A2   20011005       JP 2000-87504    20000327
PRAI JP 2000-87500      A    20000327
     JP 2000-87501      A    20000327
     JP 2000-87504      A    20000327
AB   Methods for detection of single nucleotide polymorphism (SNP)
     via hybridization of sequence-specific labeled probes and
     fluorescence correlation spectroscopy (FCS)
     anal., is disclosed.  Fluorescence signal is detected by optical
     measurement of fluorescent probes movement as function of time during
     hybridization.  The method allows simple detection of SNP without the need
     for B/F sepn., PCR or electrophoresis.
RE.CNT  8
RE
(1) Collaborative Res Inc; WO 9012115 A 1990 CAPLUS
(3) Evotec Biosystems Gmbh; DE 4301005 A CAPLUS
(4) Evotec Biosystems Gmbh; EP 672951 A CAPLUS
```

(6) Kinjo, M; Bio Techniques 1998, V25(4), P706 CAPLUS
(7) Olympus Optical Company Limited; DE 19950823 A1 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** analysis of **labeled** probe hybridization
AB Methods for detection of single **nucleotide** polymorphism (SNP) via hybridization of sequence-specific **labeled** probes and **fluorescence correlation spectroscopy** (FCS) anal., is disclosed. Fluorescence signal is detected by optical measurement of fluorescent probes movement as function of time during hybridization. The method allows simple detection of SNP without the need for B/F sepn., **PCR** or electrophoresis.
ST genotyping polymorphism labeled probe hybridization; single nucleotide polymorphism **fluorescence correlation spectroscopy** probe hybridization
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(HLA, SNP anal. of; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT Histocompatibility antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(SNP anal. of; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT Microscopes
(confocal,; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT Fluorometry
(correlation; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT Oligonucleotides
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**labeled**; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT Fluorescent probes
Genetic polymorphism
Genotyping (method)
Nucleic acid hybridization
(single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT Genetic polymorphism
(single **nucleotide**; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT Antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(surface, red blood cell; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)
IT 37228-74-3, Exonuclease

RL: BUU (Biological use, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
(use in genotyping; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

=> d l8 1-4 bib ab kwic

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2001 ACS
AN 2001:731083 CAPLUS
DN 135:269641
TI Single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** analysis of **labeled** probe hybridization
IN Hori, Kunio; Karaki, Sachiko; Kanou, Tokio; Takamiya, Yuji
PA Olympus Optical Co., Ltd., Japan
SO PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001073120	A1	20011004	WO 2001-JP2495	20010327
	W: US				
	RW: DE, FR, GB				
	JP 2001269198	A2	20011002	JP 2000-87500	20000327
	JP 2001269199	A2	20011002	JP 2000-87501	20000327
	JP 2001272404	A2	20011005	JP 2000-87504	20000327
PRAI	JP 2000-87500	A	20000327		
	JP 2000-87501	A	20000327		
	JP 2000-87504	A	20000327		

AB Methods for detection of single **nucleotide** polymorphism (SNP) via hybridization of sequence-specific **labeled** probes and **fluorescence correlation spectroscopy** (FCS) anal., is disclosed. Fluorescence signal is detected by optical measurement of fluorescent probes movement as function of time during hybridization. The method allows simple detection of SNP without the need for B/F sepn., **PCR** or electrophoresis.
RE.CNT 8
RE
(1) Collaborative Res Inc; WO 9012115 A 1990 CAPLUS
(3) Evotec Biosystems Gmbh; DE 4301005 A CAPLUS
(4) Evotec Biosystems Gmbh; EP 672951 A CAPLUS
(6) Kinjo, M; Bio Techniques 1998, V25(4), P706 CAPLUS
(7) Olympus Optical Company Limited; DE 19950823 A1 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** analysis of **labeled** probe hybridization
AB Methods for detection of single **nucleotide** polymorphism (SNP) via hybridization of sequence-specific **labeled** probes and **fluorescence correlation spectroscopy** (FCS) anal., is disclosed. Fluorescence signal is detected by optical measurement of fluorescent probes movement as function of time during hybridization. The method allows simple detection of SNP without the need for B/F sepn., **PCR** or electrophoresis.
ST genotyping polymorphism labeled probe hybridization; single nucleotide polymorphism **fluorescence correlation spectroscopy** probe hybridization
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)

(HLA, SNP anal. of; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Histocompatibility antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(SNP anal. of; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Microscopes
(confocal,; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Fluorometry
(correlation; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Oligonucleotides
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**labeled**; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Fluorescent probes
Genetic polymorphism
Genotyping (method)
Nucleic acid hybridization
(single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Genetic polymorphism
(single **nucleotide**; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(surface, red blood cell; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT 37228-74-3, Exonuclease
RL: BUU (Biological use, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
(use in genotyping; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2001 ACS
AN 2001:717144 CAPLUS
DN 135:269638
TI Single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** analysis of **labeled** probe hybridization
IN Hori, Kunio
PA Olympus Optical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001269199	A2	20011002	JP 2000-87501	20000327
	WO 2001073120	A1	20011004	WO 2001-JP2495	20010327
	W: US				
	RW: DE, FR, GB				
PRAI	JP 2000-87500	A	20000327		
	JP 2000-87501	A	20000327		
	JP 2000-87504	A	20000327		

AB Methods for detection of single **nucleotide** polymorphism (SNP) via hybridization of sequence-specific **labeled** probes and **fluorescence correlation spectroscopy** (FCS) anal., is disclosed. Fluorescence signal is detected by optical measurement of fluorescent probes movement as function of time during hybridization. Brownian motion is detected by FCS. The method allows simple detection of SNP without the need for B/F sepn., **PCR** or electrophoresis.

TI Single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** analysis of **labeled** probe hybridization

AB Methods for detection of single **nucleotide** polymorphism (SNP) via hybridization of sequence-specific **labeled** probes and **fluorescence correlation spectroscopy** (FCS) anal., is disclosed. Fluorescence signal is detected by optical measurement of fluorescent probes movement as function of time during hybridization. Brownian motion is detected by FCS. The method allows simple detection of SNP without the need for B/F sepn., **PCR** or electrophoresis.

ST single nucleotide polymorphism **fluorescence correlation spectroscopy** probe hybridization

IT Fluorometry
(correlation; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Brownian motion
(of fluorescent probes, FCS detection; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Fluorescent probes
Nucleic acid hybridization
(single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

IT Genetic polymorphism
(single **nucleotide**; single **nucleotide** polymorphism detection via **fluorescence correlation spectroscopy** anal. of **labeled** probe hybridization)

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS
AN 2000:408542 CAPLUS
DN 133:40224
TI Method and the apparatus for quantitative analysis of the target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**
IN Kinjo, Masataka
PA Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000166598	A2	20000620	JP 1998-347493	19981207

AB A method and app. for quant. anal. of the target nucleic acid by polymerase chain reaction (**PCR**) and **fluorescence correlation spectroscopy** (FCS) is disclosed. **Nucleic acid amplification** is carried out in the presence of primers, **labeled substrate**, DNA polymerase, and the target nucleic acid. The method also comprises the steps of measurement of signals from the label, assessment of the soln. mobility of the label, and quantification of the target nucleic acid. Statistical anal. of the data by performing arithmetic operations using the autocorrelation function is also included. The app. includes a microscope. The method was applied to the quant. anal. of lambda phage DNA using a set of primers and fluorescein-11-dUTP. DNA amplification by the polymerase chain reaction (**PCR**) was monitored at the level of single mols. The technique used consisted of a direct fluorescent labeling method using the **PCR** and measurement of fluorescence fluctuation by **fluorescence correlation spectroscopy** (FCS). An increasing no. of target DNA mols. during amplification resulted in a decrease of the no. fluctuations, and also an increase of the av. diffusion time. Fluorescein-11-dUTP was incorporated into the DNA strand with a length of 4000 bp using Taq DNA polymerase. Increasing the apparent labeling d. according to concn. of fluorescein-11-dUTP was evaluated from the fluorescence intensity per DNA mol. The no. of amplified DNA mols. could be detected quant. after 10 **PCR** cycles even when the initial template no. was 3750 copies; however, a linear relationship between the initial template no. and amplified DNA no. was shown at 20 cycles in **PCR**.

TI Method and the apparatus for quantitative analysis of the target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**

AB A method and app. for quant. anal. of the target nucleic acid by polymerase chain reaction (**PCR**) and **fluorescence correlation spectroscopy** (FCS) is disclosed. **Nucleic acid amplification** is carried out in the presence of primers, **labeled substrate**, DNA polymerase, and the target nucleic acid. The method also comprises the steps of measurement of signals from the label, assessment of the soln. mobility of the label, and quantification of the target nucleic acid. Statistical anal. of the data by performing arithmetic operations using the autocorrelation function is also included. The app. includes a microscope. The method was applied to the quant. anal. of lambda phage DNA using a set of primers and fluorescein-11-dUTP. DNA amplification by the polymerase chain reaction (**PCR**) was monitored at the level of single mols. The technique used consisted of a direct fluorescent labeling method using the **PCR** and measurement of fluorescence fluctuation by **fluorescence correlation spectroscopy** (FCS). An increasing no. of target DNA mols. during amplification resulted in a decrease of the no. fluctuations, and also an increase of the av. diffusion time. Fluorescein-11-dUTP was incorporated into the DNA strand with a length of 4000 bp using Taq DNA polymerase. Increasing the apparent labeling d. according to concn. of fluorescein-11-dUTP was evaluated from the fluorescence intensity per DNA mol. The no. of amplified DNA mols. could be detected quant. after 10 **PCR** cycles even when the initial template no. was 3750 copies; however, a linear relationship between the initial template no. and amplified DNA no. was shown at 20 cycles in **PCR**.

ST app nucleic acid quantification arithmetic statistics microscope; DNA amplification **PCR fluorescence correlation spectroscopy**

IT Analytical apparatus
(biochem.; method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)
IT Fluorometry
(correlation, (FCS); method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)
IT **Nucleotides**, biological studies
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**labeled**; method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)
IT Algorithm
Autocorrelation function
Fluorescent indicators
Microscopes
Nucleic acid amplification (method)
PCR (polymerase chain reaction)
Statistical analysis
(method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)
IT Nucleic acids
RL: ANT (Analyte); ANST (Analytical study)
(method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)
IT Primers (nucleic acid)
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)
IT Diffusion
(of **labeled substrate** in soln., measurement of; method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)
IT 134344-32-4, Fluorescein-11-dUTP
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**labeled substrate**; method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)
IT 9012-90-2, DNA polymerase
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(method and app. for quant. anal. of target nucleic acid by polymerase chain reaction and **fluorescence correlation spectroscopy**)

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2001 ACS
AN 1996:607588 CAPLUS
DN 125:240228
TI Detection of nucleic acid sequences at very low concentrations using multiple probes with fluorescent labels
IN Eigen, Manfred Prof; Rigler, Rudolf
PA Max-Planck-Gesellschaft Zur Foerderung Der Wissenschaften E.V. Berlin, Germany
SO Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DT Patent

LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 731173	A2	19960911	EP 1995-119546	19951212
	EP 731173	A3	20000223		
	R: CH, DE, FR, GB, IT, LI				
	DE 19508366	A1	19960912	DE 1995-19508366	19950310
	DE 19508366	C2	19980129		
	JP 08242858	A2	19960924	JP 1995-348201	19951219
	US 5807677	A	19980915	US 1995-574916	19951219
PRAI	DE 1995-19508366		19950310		

AB A method of detecting a specific nucleic acid sequence at very low levels using multiple hybridization probes labeled with a fluorescent reporter group is described. The target is hybridized with a mixt. of labeled probes and excess probe is removed after hybridization, particularly electrophoretically, esp. using a very high frequency a.c. (.gtoreq.100 kHz). This generates an electrophoretic trap that rapidly removes the probes from the origin, leaving hybridized probes and the target sequence near the origin where they can be quantified by **fluorescence correlation spectroscopy**. Peptide nucleic acids carrying a neutralizing charge may be used as probes. This lowers the mobility of the hybrid even farther compared to the probes themselves. The method is intended for use on very small (femtoliter) vols. and can be used to detect the amplification products of single copies of a sequence after **PCR** amplification.

AB A method of detecting a specific nucleic acid sequence at very low levels using multiple hybridization probes labeled with a fluorescent reporter group is described. The target is hybridized with a mixt. of labeled probes and excess probe is removed after hybridization, particularly electrophoretically, esp. using a very high frequency a.c. (.gtoreq.100 kHz). This generates an electrophoretic trap that rapidly removes the probes from the origin, leaving hybridized probes and the target sequence near the origin where they can be quantified by **fluorescence correlation spectroscopy**. Peptide nucleic acids carrying a neutralizing charge may be used as probes. This lowers the mobility of the hybrid even farther compared to the probes themselves. The method is intended for use on very small (femtoliter) vols. and can be used to detect the amplification products of single copies of a sequence after **PCR** amplification.

IT **Nucleotides**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(oligo-, probes, fluorescence-**labeled**; detection of nucleic acid sequences at very low concns. using multiple probes with fluorescent labels)

=>

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L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS
AN 1998:458128 CAPLUS
DN 129:240429
TI Quantitation of changes in P0 mRNA by polymerase chain reaction in primary
cultured Schwann cells stimulated by axolemma-enriched fraction
AU Clive, Diana R.; Lopez, T. J.; DeVries, George H.
CS Research Service, Edwvard Hines Jr Department of Veterans Affairs Hospital, Hines, IL, 60141, USA
SO J. Neurosci. Methods (1998), 81(1,2), 25-34
CODEN: JNMEDT; ISSN: 0165-0270
PB Elsevier Science B.V.
DT Journal
LA English
AB A requirement for large nos. of primary culture cells has frequently restricted investigations of gene expression in glial cells. The authors have developed a non-radioactive method based on reverse transcription-polymerase chain reaction (RT-PCR) to accurately assess small changes in the expression of the myelin specific gene P0 in Schwann cells. Using axolemma-enriched fraction (AEF) as an inducing agent, the authors demonstrate that RT-PCR can be used to detect 4-8-fold increases in P0 mRNA levels occurring in a time and dose dependent manner, utilizing only 250000 cells per assay. Initial expts. used an in vitro transcribed RNA for P0 constructed with a 300 bp deletion for quantitation by competitive RT-PCR. Relative quantitation by co-amplification of the housekeeping gene glyceraldehyde-phosphate dehydrogenase was established and provided similar results. Product evaluation was enhanced 50-100-fold by the incorporation of primers labeled with biotin at the 5' end, allowing for the sensitive detection of PCR product by enhanced chemiluminescence and autoradiog. This technique provides sensitivity to detect and evaluate picogram amts. of DNA. Our results validate the assay for P0 gene expression and indicate that the technique should facilitate the study of multiple genes of interest in glial cell systems.
IT 213020-50-9D, 5'-biotin **labeled**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**nucleotide** sequence of **PCR** primer P0 #1; **quantitation** of changes in P0 mRNA by polymerase chain reaction in primary cultured Schwann cells stimulated by axolemma-enriched fraction)
IT 213020-55-4D, 5'-biotin **labeled**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**nucleotide** sequence of **PCR** primer P0 #2; **quantitation** of changes in P0 mRNA by polymerase chain reaction in primary cultured Schwann cells stimulated by axolemma-enriched fraction)

09/325,189

WEST

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Term	Documents
FLUORESCENCE.DWPI,EPAB,JPAB,USPT.	50412
FLUORESCENCES.DWPI,EPAB,JPAB,USPT.	339
CORRELATION.DWPI,EPAB,JPAB,USPT.	114992
CORRELATIONS.DWPI,EPAB,JPAB,USPT.	11579
SPECTROSCOP$3	0
SPECTROSCOP.DWPI,EPAB,JPAB,USPT.	182
SPECTROSCOPA.DWPI,EPAB,JPAB,USPT.	2
SPECTROSCOPE.DWPI,EPAB,JPAB,USPT.	17557
SPECTROSCOPEA.DWPI,EPAB,JPAB,USPT.	1
SPECTROSCOPEC.DWPI,EPAB,JPAB,USPT.	1
(FLUORESCENCE CORRELATION SPECTROSCOP$3 NEAR5 PCR).USPT,JPAB,EPAB,DWPI.	0

There are more results than shown above. Click here to view the entire set.

Database:
- US Patents Full-Text Database
- US Pre-Grant Publication Full-Text Database
- JPO Abstracts Database
- EPO Abstracts Database
- Derwent World Patents Index
- IBM Technical Disclosure Bulletins

Refine Search: `fluorescence correlation spectroscop$3 near5 PCR` Clear

Search History

Today's Date: 11/24/2001

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	fluorescence correlation spectroscop$3 near5 PCR	0	L5
USPT,JPAB,EPAB,DWPI	fluorescence correlation spectroscop$3 near5 nucleic acid amplif$	0	L4
USPT,JPAB,EPAB,DWPI	l2 and asymmetr$2	3	L3
USPT,JPAB,EPAB,DWPI	l1 and (nucleic acid amplification or PCR)	24	L2
USPT,JPAB,EPAB,DWPI	fluorescence correlation spectroscop$3	72	L1

Term	Documents
NUCLEIC.DWPI,EPAB,JPAB,USPT.	72914
NUCLEICS.DWPI,EPAB,JPAB,USPT.	8
ACID.DWPI,EPAB,JPAB,USPT.	1655004
ACIDS.DWPI,EPAB,JPAB,USPT.	474490
AMPLIFICATION.DWPI,EPAB,JPAB,USPT.	135194
AMPLIFICATIONS.DWPI,EPAB,JPAB,USPT.	3245
PCR.DWPI,EPAB,JPAB,USPT.	27615
PCRS.DWPI,EPAB,JPAB,USPT.	771
(1 AND (PCR OR ((NUCLEIC ADJ ACID) ADJ AMPLIFICATION))).USPT,JPAB,EPAB,DWPI.	24

Display 11 Documents, starting with Document: 11

Display Format: CIT Change Format

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Search Results - Record(s) 1 through 10 of 24 returned.

☐ 1. Document ID: US 6310687 B1

L2: Entry 1 of 24 File: USPT Oct 30, 2001

US-PAT-NO: 6310687
DOCUMENT-IDENTIFIER: US 6310687 B1

TITLE: Light detection device with means for tracking sample sites

DATE-ISSUED: October 30, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stumbo; David P.	Belmont	CA		
Modlin; Douglas N.	Palo Alto	CA		

US-CL-CURRENT: 356/317; 250/458.1, 356/417, 422/63, 422/82.08

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

☐ 2. Document ID: US 6307037 B1

L2: Entry 2 of 24 File: USPT Oct 23, 2001

US-PAT-NO: 6307037
DOCUMENT-IDENTIFIER: US 6307037 B1

TITLE: Fungal target genes and methods

DATE-ISSUED: October 23, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gaffney; Thomas Deane	Chapel Hill	NC		
Flavier; Albert	Raleigh	NC		
Cloyd Kirksey; Michelle M.	Durham	NC		
Phillippsen; Peter	Riehen			CHX
Dietrich; Frederick	Durham	NC		
Wendland; Jurgen	Lorrach			DEX
Bernasconi; Paul	Chapel Hill	NC		
White; Kimberly	Durham	NC		
Filipowicz; Witold	Riehen			CHX

US-CL-CURRENT: 536/23.1; 435/252.3, 435/254.11, 435/254.2, 435/320.1, 536/24.1

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

☐ 3. Document ID: US 6306607 B1

L2: Entry 3 of 24 File: USPT Oct 23, 2001

US-PAT-NO: 6306607
DOCUMENT-IDENTIFIER: US 6306607 B1

TITLE: Heterogeneous assay for pyrophosphate

DATE-ISSUED: October 23, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Williams; John G. K.	Lincoln	NE		

US-CL-CURRENT: 435/6; 436/501

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw. Desc | Image

☐ 4. Document ID: US 6300091 B1

L2: Entry 4 of 24 File: USPT Oct 9, 2001

US-PAT-NO: 6300091
DOCUMENT-IDENTIFIER: US 6300091 B1

TITLE: Herbicide target genes and methods

DATE-ISSUED: October 9, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Patton; David A.	Durham	NC		
Ashby; Carl S.	Boulder	CO		
McElver; John A.	Durham	NC		

US-CL-CURRENT: 435/15; 435/193

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw. Desc | Image

☐ 5. Document ID: US 6297018 B1

L2: Entry 5 of 24 File: USPT Oct 2, 2001

US-PAT-NO: 6297018
DOCUMENT-IDENTIFIER: US 6297018 B1

TITLE: Methods and apparatus for detecting nucleic acid polymorphisms

DATE-ISSUED: October 2, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
French; Todd E.	Cupertino	CA		
Modlin; Douglas N.	Palo Alto	CA		
Owicki; John C.	Palo Alto	CA		
Richey; James S.	Palo Alto	CA		
Leytes; Lev J.	Palo Alto	CA		
Razvi; Enal S.	San Francisco	CA		

US-CL-CURRENT: 435/6; 435/91.2, 536/23.1, 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 6294345 B1

L2: Entry 6 of 24 File: USPT Sep 25, 2001

US-PAT-NO: 6294345
DOCUMENT-IDENTIFIER: US 6294345 B1

TITLE: Genes encoding proteins essential for plant growth and methods of use

DATE-ISSUED: September 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Levin; Joshua Zvi	Durham	NC		
Bauer; Michael William	Holly Springs	NC		
Zheng; Feng	West Lafayette	IN		

US-CL-CURRENT: 435/7.1; 435/18, 435/195, 435/232, 530/370

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 6291665 B1

L2: Entry 7 of 24 File: USPT Sep 18, 2001

US-PAT-NO: 6291665
DOCUMENT-IDENTIFIER: US 6291665 B1

TITLE: Fungal target genes and methods

DATE-ISSUED: September 18, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gaffney; Thomas Deane	Chapel Hill	NC		
Flavier; Albert	Raleigh	NC		
Gates; Krista	Apex	NC		
Wendland; Jurgen	Jena			DEX
Ayad-Durieux; Yasmina	Basel			CHX
Dietrich; Fred	Basel			CHX
Philippsen; Peter	Riehen			CHX

US-CL-CURRENT: 536/23.74; 435/252.3, 435/254.11, 435/320.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw. Desc | Image

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☐ 8. Document ID: US 6291660 B1

L2: Entry 8 of 24 File: USPT Sep 18, 2001

US-PAT-NO: 6291660
DOCUMENT-IDENTIFIER: US 6291660 B1

TITLE: Fungal genes required for normal growth and development

DATE-ISSUED: September 18, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gaffney; Thomas Deane	Chapel Hill	NC		
Wendland; Juergen	Lorrach			DEX
Dietrich; Fred	Basel			CHX
Philippsen; Peter	Riehen			CHX
Goff; Stephen Arthur	Encinitas	CA		

US-CL-CURRENT: 536/23.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw. Desc | Image

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☐ 9. Document ID: US 6263286 B1

L2: Entry 9 of 24 File: USPT Jul 17, 2001

US-PAT-NO: 6263286
DOCUMENT-IDENTIFIER: US 6263286 B1

TITLE: Methods of analyzing polymers using a spatial network of fluorophores and fluorescence resonance energy transfer

DATE-ISSUED: July 17, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gilmanshin; Rudolf	Waltham	MA		
Chan; Eugene Y.	Boston	MA		

US-CL-CURRENT: 702/19; 435/6

Full | Title | Citation | Front | Review | Classification | Date | Reference

KWIC | Draw Desc | Image

☐ 10. Document ID: US 6258533 B1

L2: Entry 10 of 24 File: USPT Jul 10, 2001

US-PAT-NO: 6258533
DOCUMENT-IDENTIFIER: US 6258533 B1

TITLE: Iterative and regenerative DNA sequencing method

DATE-ISSUED: July 10, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jones; Douglas H.	Iowa City	IA		

US-CL-CURRENT: 435/6; 435/91.1, 435/91.2

Full | Title | Citation | Front | Review | Classification | Date | Reference

KWIC | Draw Desc | Image

Generate Collection

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Search Results - Record(s) 11 through 21 of 24 returned.

☐ 11. Document ID: US 6245506 B1

L2: Entry 11 of 24 File: USPT Jun 12, 2001

US-PAT-NO: 6245506
DOCUMENT-IDENTIFIER: US 6245506 B1

TITLE: Integrated sequencing device

DATE-ISSUED: June 12, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Laugharn, Jr.; James A.	Winchester	MA		
Hess; Robert A.	Cambridge	MA		

US-CL-CURRENT: 435/6; 250/282, 422/68.1, 536/23.1, 536/25.3, 549/22

Full | Title | Citation | Front | Review | Classification | Date | Reference — KWIC | Draw Desc | Image

☐ 12. Document ID: US 6242188 B1

L2: Entry 12 of 24 File: USPT Jun 5, 2001

US-PAT-NO: 6242188
DOCUMENT-IDENTIFIER: US 6242188 B1

TITLE: Sample processing to release nucleic acids for direct detection

DATE-ISSUED: June 5, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dattagupta; Nanibhushan	San Diego	CA		
Sridhar; C. Nagaraja	San Diego	CA		
Wu; Whei-Kuo	San Diego	CA		

US-CL-CURRENT: 435/6; 435/243, 435/259, 435/91.1, 435/91.2

Full | Title | Citation | Front | Review | Classification | Date | Reference — KWIC | Draw Desc | Image

☐ 13. Document ID: US 6232075 B1

L2: Entry 13 of 24 File: USPT May 15, 2001

US-PAT-NO: 6232075
DOCUMENT-IDENTIFIER: US 6232075 B1

TITLE: Heterogeneous assay for pyrophosphate detection

DATE-ISSUED: May 15, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Williams; John G. K.	Lincoln	NE		

US-CL-CURRENT: 435/6; 436/501, 536/24.3, 536/24.31

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Desc | Image

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☐ 14. Document ID: US 6221660 B1

L2: Entry 14 of 24 File: USPT Apr 24, 2001

US-PAT-NO: 6221660
DOCUMENT-IDENTIFIER: US 6221660 B1

TITLE: DNA encoding SNORF25 receptor

DATE-ISSUED: April 24, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bonini; James A.	Oakland	NJ		
Borowsky; Beth E.	Montclair	NJ		
Adham; Nika	Ridgewood	NJ		
Boyle; Noel	Cliffside Park	NJ		
Thompson; Thelma O.	Passaic Park	NJ		

US-CL-CURRENT: 435/348; 435/357, 435/361, 435/365, 435/369, 530/350, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWMC | Draw. Desc | Image

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☐ 15. Document ID: US 6201113 B1

L2: Entry 15 of 24 File: USPT Mar 13, 2001

US-PAT-NO: 6201113
DOCUMENT-IDENTIFIER: US 6201113 B1

TITLE: Zymogenic nucleic acid molecules

DATE-ISSUED: March 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Todd; Alison V.	Glebe NSW 2037			AUX
Fuery; Caroline J.	Sydney NSW			AUX
Cairns; Murray J.	Woy Woy NSW 2256			AUX

US-CL-CURRENT: 536/23.2; 536/24.33

Full | Title | Citation | Front | Review | Classification | Date | Reference KWMC | Draw Desc | Image

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☐ 16. Document ID: US 6190889 B1

L2: Entry 16 of 24 File: USPT Feb 20, 2001

US-PAT-NO: 6190889
DOCUMENT-IDENTIFIER: US 6190889 B1

TITLE: Methods for removing primer sequences and blocking restriction endonuclease recognition domains

DATE-ISSUED: February 20, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jones; Douglas H.	Iowa City	IA		

US-CL-CURRENT: 435/91.1; 435/91.2

Full | Title | Citation | Front | Review | Classification | Date | Reference KWMC | Draw Desc | Image

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☐ 17. Document ID: US 6187566 B1

L2: Entry 17 of 24 File: USPT Feb 13, 2001

US-PAT-NO: 6187566
DOCUMENT-IDENTIFIER: US 6187566 B1

TITLE: Method of labeling a nucleic acid amplicon with simultaneous contamination prevention

DATE-ISSUED: February 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dattagupta; Nanibhushan	San Diego	CA		
Sridhar; C. Nagaraja	San Diego	CA		
Wu; Whei-Kuo	San Diego	CA		

US-CL-CURRENT: 435/91.1; 435/18, 435/4, 435/6, 436/501, 436/504, 436/63, 436/94, 536/25.32

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

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☐ 18. Document ID: US 6140055 A

L2: Entry 18 of 24 File: USPT Oct 31, 2000

US-PAT-NO: 6140055
DOCUMENT-IDENTIFIER: US 6140055 A

TITLE: Zymogenic nucleic acid detection methods and related kits

DATE-ISSUED: October 31, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Todd; Alison V.	Glebe			AUX
Fuery; Caroline J.	Sydney			AUX
Cairns; Murray J.	Woy Woy			AUX

US-CL-CURRENT: 435/6; 435/91.2, 536/23.2, 536/24.33

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

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☐ 19. Document ID: US 6117990 A

L2: Entry 19 of 24 File: USPT Sep 12, 2000

US-PAT-NO: 6117990
DOCUMENT-IDENTIFIER: US 6117990 A

TITLE: DNA encoding SNORF1 receptor

DATE-ISSUED: September 12, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bonini; James A.	Oakland	NJ		
Borowsky; Beth E.	Montclair	NJ		

US-CL-CURRENT: 536/23.5; 536/23.1, 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference

KWIC | Draw. Desc | Image

☐ 20. Document ID: US 6110676 A

L2: Entry 20 of 24 File: USPT Aug 29, 2000

US-PAT-NO: 6110676
DOCUMENT-IDENTIFIER: US 6110676 A

TITLE: Methods for suppressing the binding of detectable probes to non-target sequences in hybridization assays

DATE-ISSUED: August 29, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Coull; James M.	Westford	MA		
Hyldig-Nielsen; Jens J.	Holliston	MA		
Godtfredsen; Sven E.	V.ae butted.rl.o slashed.se			DKX
Fiandaca; Mark J.	Acton	MA		
Stefano; Kyriaki	Hopkinton	MA		

US-CL-CURRENT: 435/6; 435/5, 435/7.1, 435/91.1, 435/91.2, 530/300, 530/350, 530/387.1, 530/388.1, 536/23.1, 536/24.3, 536/24.31, 536/24.32, 536/24.33

Full | Title | Citation | Front | Review | Classification | Date | Reference

KWIC | Draw. Desc | Image

☐ 21. Document ID: US 5858671 A

L2: Entry 21 of 24 File: USPT Jan 12, 1999

US-PAT-NO: 5858671
DOCUMENT-IDENTIFIER: US 5858671 A

TITLE: Iterative and regenerative DNA sequencing method

DATE-ISSUED: January 12, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jones; Douglas H.	Iowa City	IA		

US-CL-CURRENT: 435/6; 435/91.1, 435/91.2

Full | Title | Citation | Front | Review | Classification | Date | Reference

KWIC | Draw Desc | Image

Generate Collection

Term	Documents
NUCLEIC.DWPI,EPAB,JPAB,USPT.	72914
NUCLEICS.DWPI,EPAB,JPAB,USPT.	8
ACID.DWPI,EPAB,JPAB,USPT.	1655004
ACIDS.DWPI,EPAB,JPAB,USPT.	474490
AMPLIFICATION.DWPI,EPAB,JPAB,USPT.	135194
AMPLIFICATIONS.DWPI,EPAB,JPAB,USPT.	3245
PCR.DWPI,EPAB,JPAB,USPT.	27615
PCRS.DWPI,EPAB,JPAB,USPT.	771
(1 AND (PCR OR ((NUCLEIC ADJ ACID) ADJ AMPLIFICATION))).USPT,JPAB,EPAB,DWPI.	24

Display 22 Documents, starting with Document: 22

Display Format: CIT Change Format

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Search Results - Record(s) 22 through 24 of 24 returned.

☐ 22. Document ID: US 5807677 A

L2: Entry 22 of 24 File: USPT Sep 15, 1998

US-PAT-NO: 5807677
DOCUMENT-IDENTIFIER: US 5807677 A

TITLE: Method for direct identification of few nucleic acid strands

DATE-ISSUED: September 15, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Eigen; Manfred	Gottingen			DEX
Rigler; Rudolf	Danderyd			SEX

US-CL-CURRENT: 435/6; 435/91.1, 435/91.2, 536/22.1, 536/23.1, 536/24.3, 536/25.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Desc | Image

☐ 23. Document ID: US 5674743 A

L2: Entry 23 of 24 File: USPT Oct 7, 1997

US-PAT-NO: 5674743
DOCUMENT-IDENTIFIER: US 5674743 A

TITLE: Methods and apparatus for DNA sequencing

DATE-ISSUED: October 7, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ulmer; Kevin M.	Cohasset	MA		

US-CL-CURRENT: 435/287.2; 422/82.08, 435/288.7, 436/172, 436/94

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Desc | Image

☐ 24. Document ID: DE 19950823 A1, JP 2000125900 A

L2: Entry 24 of 24 File: DWPI Apr 27, 2000

DERWENT-ACC-NO: 2000-367174
DERWENT-WEEK: 200032

TITLE: Quantitative determination of a target nucleic acid in a biological sample comprises amplification using a known number of labeled primer molecules

INVENTOR: KINJO, M

PRIORITY-DATA: 1998JP-0301316 (October 22, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 19950823 A1	April 27, 2000		017	C12Q001/68
JP 2000125900 A	May 9, 2000		012	C12Q001/68

INT-CL (IPC): C12N 15/09; C12Q 1/68; G01N 33/50

Generate Collection

Term	Documents
NUCLEIC.DWPI,EPAB,JPAB,USPT.	72914
NUCLEICS.DWPI,EPAB,JPAB,USPT.	8
ACID.DWPI,EPAB,JPAB,USPT.	1655004
ACIDS.DWPI,EPAB,JPAB,USPT.	474490
AMPLIFICATION.DWPI,EPAB,JPAB,USPT.	135194
AMPLIFICATIONS.DWPI,EPAB,JPAB,USPT.	3245
PCR.DWPI,EPAB,JPAB,USPT.	27615
PCRS.DWPI,EPAB,JPAB,USPT.	771
(1 AND (PCR OR ((NUCLEIC ADJ ACID) ADJ AMPLIFICATION))).USPT,JPAB,EPAB,DWPI.	24

Display 22 Documents, starting with Document: 24

Display Format: CIT Change Format

L2: Entry 22 of 24 File: USPT Sep 15, 1998

DOCUMENT-IDENTIFIER: US 5807677 A
TITLE: Method for direct identification of few nucleic acid strands

BSPR:
One method which was developed a number of years ago involves amplifying the individual or few nucleic acid strands to a concentration level suitable for conventional methods such as gel electrophoresis, the process of temperature gradient gels, sequencing, for example according to the Sanger Method or the Maxam-Gilbert technique. Polymerase chain reactions (PCR) or analog methods are available for this amplification. These are based on a specific replication of the nucleic acid sections to be identified. One hereby exploits the properties of DNA-polymerases, which can polymerise a single strand to a double-strand if they are provided with a short, double-stranded section as a primer. The nucleic acid strands containing a sequence to be amplified are mixed with two chemically synthesized oligonucleotides originating from the end areas of the sequence to be amplified and which are strand-specific, i.e. complementary to one of the two DNA strands.

BSPR:
On the one hand such methods are very time-consuming; not only do the PCR reactions have to be carried out but these are then followed by a umber of further analyses so as to be able to at least quantitatively conclude the presence of the desired sequence in the test solution. Moreover, certain short-chain nucleic acid sequences with a length of approx. 15-20 nucleotides have to be provided which are exactly complementary to a corresponding section of the sequence to be detected. Such an exactly complementary short-chain nucleic acid section is generally called an "antisense sequence" or "primer".

BSPR:
Apart from the time involved, this method also has the disadvantage that only those nucleic acid sequences can be identified where at least a short section of the sequential sequence at both ends is known so that the corresponding primer can be provided. If the nucleic acid strands to be identified are RNA molecules, these first have to be transcribed into a DNA copy by means of an RNA-dependent DNA polymerase before the PCR method can be employed.

BSPR:
A further method consists of directly visualizing the sequence to be identified, which means that naturally this sequence first has to be clearly distinguishable from alternative sequences. A newly developed method to identify and count individual molecules is the fluorescence correlation spectroscopy described in WO 94/16313, hereinafter referred to as the FCS method. The publication quoted explains how single DNA/RNA molecules marked with dye can be identified by FCS in a very small probe volume in the range of 0.1-10 fl provided the molecule to be identified either differs significantly from alternative molecules in the probe volume or has been isolated.

BSPR:
In the PCR method already mentioned above, two primer sequences are required of which one is complementary to the start region of the plus strand and the other complementary to the start region of the minus strand. The sequence section between the positions of the two primer sequences is then amplified. With the FCS method all that is required is a specific primer sequence marked with a

fluorescence dye. This hydribizes directly on to (single-stranded) RNA sequence to be detected or to a strand of the melted DNA sequence. In this way the marked primers differ greatly from the free primers in both their charge characteristics and their mobility and can be directly detected by FCS without further amplification.

BSPR:
The FCS method thus has a number of advantages compared to the PCR method or analog methods. Firstly, the FCS method can be used directly for both single-stranded and double-stranded nucleic acid molecules. Since a number of pathogens are single-stranded RNA viruses, with the FCS method these do not firstly have to be transcribed to DNA, which has a positive effect on the time required for the analysis. Moreover, the FCS method is more direct, identifying the individual nucleic acids which otherwise first would have to be amplified when using the PCR method. This also leads to a noticeable difference in the time required.

BSPR:
In addition, the amplification process can be disturbed or hindered by certain substances so that the PCR method is not always reliable for natural samples.

BSPR:
However, just like the PCR method, the FCS method is susceptible to faults with respect to its specificity. Partial sections of a primer sequence, e.g., may also be complementary to sequences which are by chance similar to the target sequence. Primer sequences of lengths between 15 and 20 nucleotides are thus selected to achieve an adequate specificity of binding. However, it then has further to be ensured that the melting points of only partially complementary sequences are below the working temperature, in other words cannot be measured.

BSPR:
In the PCR method two primer sequences are used, whereby the probability that both sequences display faulty bindings is slight. However, the primers have to be used in much higher concentrations since they are consumed by the reaction.

BSPR:
These are well established methods which can be employed advantageously to produce the primer from the target sequence. In this manner primer can be advantageously produced against target sequences whose sequence succession is only partly known or completely unknown. All that is necessary is that the ends of the target sequences are known or that known sequence sections are synthesized to completely unknown sequence sections so that the primers necessary for the PCR method can be provided. The section of the target sequence between the two primers does not have to be known in the succession, the correct primers for the analysis are "automatically" produced, as it were, so that new viruses can also be looked for.

CLPR:
9. A method in accordance with claim 7, wherein the replication or transcription product is produced by a method selected from the group consisting of the polymerase chain reaction technique (PCR technique), an PCR analog method and other methods utilizing specific RNA or DNA polymerases, and combinations thereof.

CLPR:
16. A method in accordance with claim 1, wherein the identification of the target sequence is carried out by a fluorescence correlation spectroscopy whereby a small volume element of the incubated solution, is exposed to an excitation light from a laser which excites the primers in this probe volume to emit fluorescence light, the fluorescence light emitted from the probe volume is measured with a photo-detector and a correlation is drawn between the temporal change in the measured emission and the relative rate of diffusion of the molecules involved, so that with a correspondingly stronger dilution, individual molecules can be identified in the probe volume.

WEST

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L2: Entry 23 of 24 File: USPT Oct 7, 1997

DOCUMENT-IDENTIFIER: US 5674743 A
TITLE: Methods and apparatus for DNA sequencing

DEPR:
If it is desired to amplify any of the isolated DNA or a specific portion thereof, prior to sequencing, polymerase chain reaction (PCR) can be employed (U.S. Pat. Nos. 4,683,202, 4,683,195 and 4,889,818; Gyllenstein et al., 1988, Proc. Natl. Acad. Sci. USA 85:7652-7656; Ochman et al., 1988, Genetics 120:621-623; Loh et al., 1989, Science 243:217-220, which are incorporated herein by reference).

ORPL:
Rigler and Widengren, 1990, "Ultrasensitive detection of single molecules by fluorescence correlation spectroscopy," in BioScience, B. Klinge & C. Owmar (eds.), pp. 180-183.